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EXAMINER	
GROUP, KARL E	
nue South ART UNIT PAP	
1755	
	1755

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

		·		/ L		
		Application No.	Applicant(s)			
Office Action Summary		10/654,767	CAMPBELL, CHE	RISTIAN X.		
Οπίσε Αστίο	on Summary	Examiner	Art Unit			
		Karl E. Group	1755			
The MAILING DA Period for Reply	TE of this communication app	pears on the cover sheet with the c	orrespondence ad	ddress		
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).						
Status						
1) Responsive to con	mmunication(s) filed on	<u>_</u> ,				
2a) This action is FIN	AL. 2b)⊠ Thi:	s action is non-final.				
3) Since this applica) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accorda	closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims						
4)⊠ Claim(s) <u>1-37</u> is/a	are pending in the application	1.				
	4a) Of the above claim(s) is/are withdrawn from consideration.					
	5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) <u>1-37</u> is/are rejected.					
	7) Claim(s) is/are objected to. 3) Claim(s) are subject to restriction and/or election requirement.					
o)[_] Claim(s) ai	e subject to restriction and/o	or election requirement.				
Application Papers						
9)☐ The specification is objected to by the Examiner.						
10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
11) The oath or declar	ation is objected to by the E	xaminer. Note the attached Office	Action or form P	TO-152.		
Priority under 35 U.S.C. §	119					
12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☐ All b) ☐ Some * c) ☐ None of: 1. ☐ Certified copies of the priority documents have been received.						
/ <u>—</u>	·	prity documents have been receive		I Stage		
	from the International Burea		za in tillo riational	Glage		
		t of the certified copies not receive	ed.			
Attachment(s)						
1) Notice of References Cited ((PTO-892)	4) Interview Summary	(PTO_413)			
2) Notice of Draftsperson's Pat	tent Drawing Review (PTO-948)	Paper No(s)/Mail Da	ate			
 Information Disclosure State Paper No(s)/Mail Date 9 4 6 	ement(s) (PTO-1449 or PTO/SB/08) 0 <i>3</i>) 5) Notice of Informal P 6) ☐ Other:	atent Application (PT	O-152)		
		o,				

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Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 8-10,12,13,17,23,29,32,33,34 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 8-10,12,32,33 a ratio may not be expressed as a percentage.

Claim 17, the term "preferentially" makes it unclear if the limitation is required or not.

Claim 23, the terminology "ceramic matrix composite material opposed the aggregate material" is confusing.

Claims 13 and 34 appear to be outside the scope of the claims, from which they depend because spheres are not considered aggregations, see specifically page 11 last paragraph of the instant disclosure where spheres are used in place of aggregates.

Claim 29 it cannot be seen how a matrix may be a particle.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claims 1-5,13,17,18,21,23,25, are rejected under 35 U.S.C. 102(a or e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wang et al (6,723,674).

Wang et al teach the addition of ceria and zirconia to an alumina containing matrix, see column 8, example 2. The material forms cracks, column 9, lines 42-48. The thermal expansions are considered to be inherent of the materials.

It is well settled that when a claimed composition appears to be substantially the same as a composition disclosed in the prior art, the burden is properly upon the applicant to prove by way of tangible evidence that the prior art composition does not necessarily possess characteristics attributed to the CLAIMED composition. In re Spada, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Circ. 1990); In re Fitzgerald, 619 F.2d 67, 205 USPQ 594 (CCPA 1980); In re Swinehart, 439 F.2d 2109, 169 USPQ 226 (CCPA 1971).

6. Claims 1-37 are rejected under 35 U.S.C. 102(a or e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Spitsberg et al (6,558,814).

Spitsberg et al teach a material including a matrix and tow or more materials with different thermal expansions to form cracks in the material. The material is used as

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turbines, see column 3, lines 1-25. An alumina matrix is disclosed as well as mullite particles, see column 5, lines 22-50. The thermal expansions are considered to be inherent of the material used.

The claims are considered anticipated or in the alternative the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time of the invention to have selected materials with known CTE mismatches to achieve the effect disclosed by the prior art.

- 7. Applicants are requested to amend the continuing data in the disclosure to update the status of the parent application.
- 8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl E. Group whose telephone number is 571-272-1368. The examiner can normally be reached on M-F (6:30-4:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karl E Group / Primary Examiner

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Keg 7-8-05